

HARRISONBURG-ROCKINGHAM REGIONAL SEWER AUTHORITY

ENHANCED BIOSOLIDS REUSE AND REDUCTION PROJECT

ITB HRRSA-2017-03

ADDENDUM NO. 2

September 15, 2017

To Offerors:

This ADDENDUM NO. 2 provides 1) responses to questions from potential Bidders, 2) changes to the project plans and specifications. ADDENDUM NO. 2 is hereby made a part of the contract documents on which the contract will be based, and is issued to modify, explain and/or correct the original contract documents. Please attach this Addendum to your contract documents and submit proposals and be otherwise governed accordingly. Receipt of this Addendum must be acknowledged where indicated on the Bid Form.

RESPONSES TO QUESTIONS

Question No. 1 – The manual calls for 16 oz/sf (400 series) roofing panels, however in the drawings I don't see where our roofing panel is specified. Our discussions with Buchart Horn for roofing solutions was our 12 oz/sf (300 series). I need to clarify if a.) the roof is being done using FRP and if so b.) which series we are using.

Response: *The contingent roof panels are to be FRP. The 400 series, 16 oz/sf panel should be used.*

Question No. 2 – Lastly, in our discussions with Buchart Horn they mentioned no Factory Mutual requirements, however on page 612 under "Reference Standards" there are two Factory Mutual standards. If this is true, we will need to change the specified panel to our FM approved product as it meets the listed ASTM requirements as well.

Response: *FM approved products are required. See revisions to Specification 07640 herein.*

Question No. 3 – We are having issues printing the Komline-Sanderson drawings that are included in the specifications. Please provide the KS documents in a legible scalable size?

Response: *New electronic files of Komline-Sanderson P&ID drawings are attached to this document. PLEASE NOTE THAT THESE P&IDs ARE PRELIMINARY AND MAY HAVE SOME ERRORS IN THEM. THEY ARE STAMPED AS "PRELIMINARY – NOT FOR CONSTRUCTION".*

Question No. 4 – Please clarify who is responsible for the testing?

Response: *The Owner (HRRSA) is responsible for employing and paying for all special inspections. The costs for inspections such as material testing (such as concrete testing), installation, fabrication (field welding) and erection shall be paid for by HRRSA. However, it is the responsibility of the Contractor to coordinate the timing of all special inspections as required in the Contract Documents.*

Question No. 5 – Can Keystone Conveyors be added as a named manufacturer to Specification 14551?

Response: *Keystone has been added to Specification 14551 as a named manufacturer. See changes to the specification herein.*

Question No. 6 – No details have been provided for the requirements of the Engineer's office. Please provide a list of furnishings.

Response: *See revisions to Specification 01500 herein.*

Question No. 7 – Does the (belt) conveyor frame need to be Hot Dipped Galvanized or would a epoxy paint be sufficient? (There is no call out for this for conveyor 2 or 3) The only thing called out is the drip trays out of 304 SS and the sideskirt supports are to be galvanized and anything touching "wetted surfaces will be 304 SS. Rotary valves are will be lined with UHMW.

Response: *Yes, hot-dip galvanized steel is required. Epoxy painted is not acceptable. See revisions to Specification 14400 herein.*

Question No. 8 – Can the support legs be primed and painted? Do they have to be Hot Dipped Galvanized?

Response: *No, the support legs cannot be primed and painted. They must be hot-dip galvanized.*

Question No. 9 – There is no spec for the idlers or return rollers for Conveyor 2 and Conveyor 3 are painted ok? Or do they want something else? They call it out for conveyor 1, the one they are extending but not 2 or 3 unless I missed it.

Response: *See revised Section 14400 attached to this document. An idler specification has been added.*

Question No. 10 – The pipe schedule in Section 02570 calls for buried ductile iron pipe joints to be MJ with retainer glands. Please verify if American Flex-Ring restrained joint pipe will be acceptable in lieu of mechanical joint pipe.

Response: *Mechanical joint and retainer glands shall be used at all bends and valves. However, per Paragraph 2.04.E, American Lok-Ring restrained joint pipe is acceptable for straight runs of pipe. American Flex-Rings are not acceptable.*

Question No. 11 – There is no spec for flange bolt kits. Please confirm that 304 SSTL is acceptable.

Response: Yes, 304 stainless steel is acceptable for flange bolt kits. See revisions to Specification 02570.

Question No. 12 – Specification section 11350 paragraph 2.01.B.1: As Schwing Bioset had performed a pilot test at North River WWTF meeting the specified performance, could you please add Schwing Bioset to named supplier?

Response: At the preference of the Owner, Schwing Bioset will not be added as a named supplier. However, Contractors can elect to write Schwing Bioset into the table on SECTION 00400.3 PROPOSED "OR EQUAL" AND/OR "SUBSTITUTE" EQUIPMENT of the Bid Form for a credit.

Question No. 13 – Specification section 11350 paragraph 2.01.B.1.a: Please add Schwing Bioset model FSP703 as screw press to be supplied.

Response: See response above.

Question No. 14 – Specification section 11350 paragraph 2.02.B.5.a: As the specified B-10 bearing life of 500,000 hours equates to 57 years of continuous service, would a more typical B-10 life of 50-100,000 hours be considered?

Response: The bearing life has been revised to 100,000 hours. See revised specification 11350 herein.

Question No. 15 – Specification section 11350 paragraph 2.02.B.10.a: The drum is specified to be 0.5 or 1 meter in length whereas drawing PM-12 shows the press to be over 23ft (over 6 meters) in length. Please clarify.

Response: The drum is to be constructed of multiple sections. Each section is to be either 0.5 or 1 meter in length. See revised specification 11350 herein.

Question No. 16 – Specification section 11350 paragraph 2.03.E: Agitator motor is specified to be 2HP whereas drawings E9 & PCS-16 show 1HP. Schwing Bioset recommends 1½ HP.

Response: The agitator motor shall be no larger than 2 HP. See revisions to E and PCS drawings herein.

Question No. 17 – Specification section 17110 paragraph 2.03.A: Spares for VFDs in MCC are specified. Does requirement for spare VFD and other spares listed apply to VFD provided in Screw Press Control Panel shown on drawing PCS-16?

Response: The screw press manufacturer shall provide a spare VFD for each size utilized.

Question No. 18 – Specification section 17400 paragraph 2.03.A: Spare PLC modules are specified. Are the spares to be supplied by Process Control System Supplier or do spares get multiplied for each of the eight PLCs listed in section 17500 paragraph A.4.

Response: The spare PLC modules specified in 17400 shall be provided by the PCS Supplier. This is the total number of spare modules required for the project.

Question No. 19 – Can Shand & Jurs be added to the Digester Gas Handling Equipment specification 11800?

Response: *Shand & Jurs has been added as a named manufacturer to section 11800. See revisions to specification herein.*

Question 20 - Specification 15115 Valves and Piping Specialties: In Section 2.12, you have specified Low Pressure Drip Trap with Electric Actuator. Is this just part of standard spec's and not part of this project? The drip traps that we see off the condensate and sediment traps are just manual units. We did not see any others. You can add Shand & Jurs Model 97100 to 2.1.A and Shand & Jurs Model 97100E to 2.12.E for either this project or future specifications.

Response: *The low pressure drip trap with electric actuator in Specification 15115 is a part of the project. See Section K on PM-5 and E-14 of the drawings. Drip traps shall only be electrically actuated when indicated as so on the drawings.*

Question 21 - Are we to provide a new belt for the entire length of the conveyor, or just a section of belt to splice in? What would be the length of belt needed if providing a new belt?

Response: *A new belt is required for Belt Conveyor No. 1. The approximate length of the new belt is 37 ft +/- . This length is for information purposes only and should be confirmed in the field by the Contractor prior to any fabrication.*

Question 22 - Can you provide a cross sectional drawing showing the material of construction of the conveyor frame/covers (if needed) that we are to provide an extension to?

Response: *A section view of the existing belt conveyor is attached herein. The drawing should only be used for information purposes only, not fabrication. Refer to Paragraph 2.04.C.1 of Specification 14400 for materials of construction of the existing conveyor.*

Question 23 - Specification section 15107-2.03 Stainless Steel Pipe. At 2.03.A and B.2: Please clarify if the dryer sludge feed is to be Schedule '40s', as referenced in the prior sentence (which would be a 0.375 inch nominal wall thickness, per the also referenced ANSI B36.19, subject to the standard pipe tolerance of minus 12.5%); as opposed to your Schedule '40' (which could be interpreted as an intention for a 0.406 inch nom. wall, per the carbon steel pipe standard ANSI B36.10-also subject to an allowed tolerance).

Response: *Schedule 40 and Schedule 40s have the same physical dimensions for a 10 inch pipe.*

Question 224– Specification section 15107-2.03 Stainless Steel Pipe: Your project calls for 6 - 12" diameter 3RAD 90' ELB (DWG PM-4 and spec Part 2.03.B.2) which must be provided as pipe bends, as such elbows are not made. Our pipe bending supplier advises that there will be an average 12% thinning of the pipe wall in the heel of the bends; with as much as 20% thinning possible. Since pipe manufacturers may supply the pipe wall less than the nominal-but within tolerance, the added thinning from bending will likely bring the wall thickness in this area to less than that allowed. We question if this

will be acceptable to your application; or if a heavier wall thickness should be required for the bends so that the finished bends' wall thickness will remain within the tolerance allowed for the pipe.

Response: *There are no changes to the specification. Please note that the dryer sludge feed pipe size has changed to 10 inch.*

Question 25 – Specification section 15107-2.03 Stainless Steel Pipe At 2.03.C: You require specific flanges for the dryer sludge feed (300# RF WN - which we assume to be forged stainless steel per ASTM A182 F304L and ASME B16.5). However, you only indicate flanges for other services to be stainless steel. We suggest you specify AWWA C 228 Class SB 304L stainless steel plate type ring flanges with Class 125 drilling (which is the same drilling pattern as Class 150 for sizes 24 inch and less).

Response: *There are no changes to the specification.*

Question 26 – What proper steps need to be taken in order to be added to the list of approved process control system suppliers in Section 17010 page 1?

Response: *C2i has been approved as a control system supplier. See revision to Specification 17010 herein.*

Question 27 – I am seeking the engineer's estimate for the above project. Would you know or would you mind directing me to someone who does?

Response: *The engineer's estimate cannot be provided.*

Be advised that some additional questions have been received and were not addressed in the responses above. Those questions will be addressed in the last addendum.

*****END OF RESPONSES TO QUESTIONS*****

REVISIONS TO DRAWINGS

1. DRAWING NO. S-1, GENERAL NOTES, NOTE 8.P.,

REVISE the last word "Contractor" to read "Owner".

2. DRAWING NO. S-1, GENERAL NOTES, NOTE 13.G.,

REVISE the last word "Contractor" to read "Owner".

3. DRAWING NO. E-9, SOLIDS HANDLING BUILDING PRESS OPERATION ROOM ELECTRICAL PLAN

CHANGE the Flocculator motor size from "1" HP to read "2" HP.

4. **DRAWING NO. PCS-16, SCREW PRESS CONTROL PANEL**

CHANGE the Flocculator motor size from "1" HP to read "2" HP.

REVISIONS TO SPECIFICATIONS

1. **SECTION 01500, TEMPORARY FACILITIES AND CONTROLS, PARAGRAPH 1.05.A, ADD**

- "2. The old compost building located under the southwest corner of the storage pavilion will be made available by HRRSA to be used at the Engineer's office. The building is currently used for storage but will be cleared out by HRRSA prior to Contractor mobilization. The building currently has power and heating but no air conditioning. The Contractor shall provide and install one window air conditioner in the Engineer's office.
3. The Engineer's office shall be fully furnished 5 days prior to start of any work performed onsite.
4. The Engineer's office shall also be furnished with the following items:
- a. One 30"x60" Steel 2-pedestal desk w/locking drawers
 - b. One executive swivel desk chair
 - c. One 36"x60" drafting table and swivel drafting stool w/backrest
 - d. One 4-drawer fireproof file cabinet w/locking drawers
 - e. One vertical plan file rack
 - f. One 48"x96" (minimum dimensions) meeting table
 - g. Ten folding chairs
 - h. One water cooler with instant hot water attachment; maintain adequate supply of bottles
 - i. One refrigerator - office size
 - j. One full size color copy, print and scan machine on dedicated line such as Xerox Model 7346 or Equal. With toner cartridges
 - k. One book case, minimum four shelves.
 - l. Provide paper towels
 - m. Computer Hardware: Equip the field office with one MS-DOS Computer System with the following minimum requirements: i.7-2620M Intel Core Processor, 4 GB RAM, 250 GB Hard Disk, 17" Color LCD Monitor, 48x CD-Rom Drive, 1 Parallel Port,

2 Series Ports, 2 USB Ports, Microsoft Compatible Mouse, Xerox Machine Interface Cable

- n. Computer Software (Either the version shown or the latest version): Operating System Microsoft Windows 8 Professional, Microsoft Word, Microsoft Excel, Adobe Acrobat, Mozilla Firefox, AutoCAD 2016 ,Norton Internet Security
- o. Computer Supplies/Accessories: 6-Outlet Power Strip w/Surge Protection, 8-1/2"x11" Laser Paper (2000 sheets)
- p. All furniture and equipment items shall be clean, serviceable, and satisfactory to the Engineer when installed in the field office. Maintenance service, or replacement, for equipment and furniture that become unserviceable during use shall be provided within 24 hours. The Contractor shall ensure a continuous supply of disks, copy and printer paper, ink, etc. for the equipment. The Contractor shall provide weekly janitorial service including the disposal of trash, vacuuming and/or sweeping floors, dusting tables, desks, chairs, counters, etc.
- q. Failure to provide any service/supply within the time allotted will result in the Engineer securing the needed service/supply and crediting the Contractor's Contract Price.
- r. An exterior temperature gauge shall be provided on the field office, and said gauge shall be used as official temperature in exterior work.
- s. Equipment furnished for field office shall be returned to the Contractor at completion of project.
- t. Contractor shall maintain a separate office of his use."

2. **SECTION 02570, UNDERGROUND PIPING AND FITTINGS, PARAGRAPH 2.04.E**, In the first sentence, REPLACE "Lok-Fast" with "Lok-Ring".

3. **SECTION 02570, UNDERGROUND PIPING AND FITTINGS, PARAGRAPH 2.02**, ADD"

"F. Bolt and Nuts: 304 stainless steel"

4. **SECTION 07640, GLASS FIBER REINFORCED PLASTIC ROOFING AND SIDING, PARAGRAPH 2.02.A.1**, DELETE in its entirety (including Articles 2.02.A.1.a and 2.02.A.1.b) and REPALCE with:

"1. Wall Panels: Profile/Series shall be 7.2 x 1.5 – FM – 10UV Coat – ES.

a. Wall Panels: Nominal weight, 10.5 oz/sf."

5. **SECTION 07640, GLASS FIBER REINFORCED PLASTIC ROOFING AND SIDING, PARAGRAPH 2.02.A**, INSERT the following as 2.02.A.2:

"2. Roof Panels: Profile/Series shall be 7.2 x 1.5 – FM – 16UV Coat – ES.

a. Roof Panels: Nominal weight 16 oz/sf."

6. **SECTION 07640, GLASS FIBER REINFORCED PLASTIC ROOFING AND SIDING, PARAGRAPH 2.02.A**, RELABEL the existing Articles 2.02.A.2 – 2.02.A.8 to read 2.02.A.3 – 2.02.A.9.
7. **SECTION 11350, DEWATERING UNIT AND SCREW CONVEYOR, PARAGRAPH 2.02.B.5.a**, REVISE "500,000 hours" to read "100,000 hours".
8. **SECTION 11350, DEWATERING UNIT AND SCREW CONVEYOR, PARAGRAPH 2.02.B.10.a**, REVISE "Drum shall be 0.5 to 1.0 meters in length" to read "The drum shall be made of multiple sections. Each section is to be 0.5 or 1.0 meter in length".
9. **SECTION 11800, DIGESTER GAS HANDLING EQUIPMENT, PARAGRAPH 1.04.A**, ADD "or Shand & Jurs" after the name "Groth".
10. **SECTION 11800, DIGESTER GAS HANDLING EQUIPMENT, PARAGRAPH 2.01.B.6**, ADD "or Shand & Jurs Model 97120" after the name "Varec Series 233 08 F S".
11. **SECTION 11800, DIGESTER GAS HANDLING EQUIPMENT, PARAGRAPH 2.01.C.3**, ADD "or Groth or Shand & Jurs Model 97100" after the name "Varec Series 246".
12. **SECTION 11800, DIGESTER GAS HANDLING EQUIPMENT, PARAGRAPH 2.01.D**, DELETE in its entirety and REPLACE with:

"D. Flame Trap Assembly

1. Flame trap assembly shall have 8" size flanged connections. Total pressure drop shall not exceed 0.5" W.C. Assembly shall include thermal shut-off valve and flame arrester. Unit shall be suitable for installing in horizontal piping (vertical installation optional). Thermal valve shall include a fusible element designed to close the valve within 15 seconds upon reaching 255° F (124° C). Fusible element shall control a spring operated pallet. An isolated sight glass shall be provided so that pallet position can be determined without having to remove the valve from service. Fuse plug shall be gas tight and shall be removable for replacement of the fusible element. Valve construction shall be low copper cast aluminum body and cover. Inner valve shall include low copper aluminum pallet assembly with 304 stainless steel compression spring. Sight glass shall be heat resistant pyrex with Buna-N gaskets. The flame arrester shall be low copper aluminum construction (stainless steel optional) with a spiral wound aluminum tube bank and shell (stainless steel optional). The entire bank assembly shall slide easily out of the arrester housing to facilitate inspection and cleaning. Flame arrester for vertical installation shall be

self- draining. Flame arresters for horizontal service shall include an offset housing with a 1/2" NPT drip trap connection at the low point. Maximum working pressure shall be 5 psig (34.5 kPa). Flanges shall be drilled to ANSI 125 lb. flat faced flanged dimensions.

2. The flame trap assembly shall be Shand & Jurs Model 97140, Varec 450 Series or equal."
13. **SECTION 14400, BELT CONVEYOR**, DELETE section in its entirety and REPLACE with Section 14400 attached to this addendum.
14. **SECTION 14551, SCREW CONVEYORS, PARAGRAPH 1.02.A**, ADD "or Keystone Conveyors" as a name manufacturer/supplier after "Jim Myers & Sons, Inc."
15. **17010 – PROCESS CONTROL SYSTEM GENERAL REQUIREMENTS** - On Page 17010-1, ADD the following System Integrators to the list of approved System Integrators in PARAGRAPH 1.01.A.2:

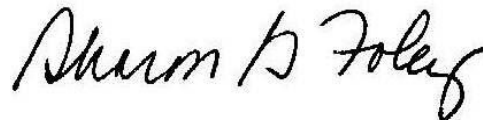
Control Instrument, Inc./C2i
5253 Oakdale Road
Smyrna GA, 30082
404-351-1085
Contact: Matt Healey

*****END OF CHANGES TO CONTRACT DOCUMENTS*****

LIST OF ATTACHMENTS

Komline-Sanderson P&IDs
Existing Belt Conveyor Drawing
Specification 14400

*****END OF LIST OF ATTACHMENTS*****



Sharon G. Foley, P.E.
Executive Director